Jon W. Bäckström

P.O. Box 375
Indianola, IA 50125

(515) 961-7731 Home
(515) 961-0100 Applied Digital Arts
(515) 961-0101 Fax

Birth: September 29, 1955
San Diego, CA

Internet E-mail and Web Site:
backstrom@iowa.net
http://www.iowa.net/~backstrom

Keywords:

User Experience Design, Instructional Development, Usability, Technology Research, World-Wide Web, C/C++, Perl, PHP, Flash, Java, Javascript, DHTML, XML, UNIX and Windows Systems Administration

Objective:

Seeking a position in user experience design, usability, multimedia production, instructional development, and the development of World-Wide Web applications. I am very interested in technology training and I value the opportunity to design and develop Internet-based performance support systems. instructional resources, and interactive multimedia. I am also interested in UNIX systems administration and technical support.

Education:

Iowa State University, Ames, IA
Ph.D. Human Computer Interaction, *In Progress*

Purdue University, West Lafayette, IN
M.S. Instructional Research and Development, August 1983

California Lutheran University, Thousand Oaks, CA
B.S. Psychology, May 1978 *Summa Cum Laude*

Competencies:

Systems Administration

Experienced installing, configuring, and maintaining UNIX and Windows servers. Specific installations include Solaris, Max OS X, and PC hardware using FreeBSD, Linux, and Windows Server. Past familiarity with a wide variety of operating systems including BSD UNIX, IRIX, NeXTSTEP, BeOS, Mac OS, OS/2, MS-DOS, and OS-9.

UNIX:	Windows:	Database:
• Apache HTTP Server, Tomcat	• Microsoft Server 2003, IIS Web Server	• Oracle 10g RAC, PL/SQL
• PHP, SSL, mod_perl, mod_ruby	• .NET, ASP and FrontPage Extensions	• Sybase ASE, isql, sqsh
• Microsoft FrontPage Extensions	• Microsoft SharePoint Server	• Sybase PowerDesigner
• DNS (bind), sendmail, POP, IMAP	• Microsoft Remote Access Server (RAS)	• IBM DB2, Berkeley DB
• ppp, ftp, ircd, uucp, cnews, inn	• Apache (Win32), Perl (Win32)	• mySQL, PostgreSQL
• SSH, OpenLDAP, Sun NFS	• Interix (OpenNT), DNS services	• phpMyAdmin

Computer Programming

Highly skilled building web applications and UNIX software tools using Perl, Java, and shell scripting. Proficient using C/C++, Ruby, Python, and BASIC. Skilled programming multimedia applications using Adobe Flash and Dreamweaver, Javascript, and DHTML. Conversant with FORTRAN, Scheme, and LISP, and assemblers. Also capable of programming custom macro scripts for Microsoft Office applications (Word, Excel, etc).

UNIX:	Windows:	Multimedia and Web:
• Perl (CGI.pm, DBI.pm, CPAN)	• Microsoft Visual Studio (.NET, C#, VB)	• Adobe Flash (ActionScript)
• Java (Servlets, JSP, JDBC)	• Sun Netbeans (Open Source Java IDE)	• HTML/CSS, XML/XLT
• SQL, PL/SQL, SQL Advantage	• Microsoft IIS, ASP, MS SQL 2005	• Javascript, AJAX, DHTML
• GNU C/C++ (gcc), Python, Ruby	• Microsoft Visual Basic for Applications	• PHP, Ruby on Rails
• Berkeley DB (dbm), OpenLDAP	• Microsoft Visual FoxPro, Access	• GarageGames Torque 3D
• Bourne shell, csh, ksh, tcsh, bash	• Borland C++ Builder, Delphi, 3rd Rail	• Toolbook (OpenScript)

User Experience and Usability

Experienced with design considerations for interactive multimedia, computer/user interactions, on-line help, text and graphic displays, and the use of CRT display attributes to enhance the user interface. Participated in usability experimentation to test the effectiveness of various menu selection and screen display strategies used in interactive systems for non-programmers. Current research includes the development of text display strategies for improved reading efficiency, menu design, and the applications of interactive optical media.

Instructional Development

Adept in the design, development, and evaluation of instructional materials. Knowledge-engineering skills include several methodologies of task analysis. Have developed computer-based instruction, job-aids, user manuals, modular instruction, programmed instruction, and audio-tutorial systems. Production experiences include the development of instructional materials using a variety of media: interactive videodisc, CD-ROM, NAPLPS videotex, presentation graphics, animation, video imaging, and several desktop publishing systems.

Interactive Multimedia and Courseware Authoring

Experienced in the design, programming, and evaluation of interactive multimedia and computer courseware. Have developed tutorials, laboratory simulations, and software systems for automated course management and test creation. Proficient using many courseware authoring languages, image editing, and animation tools.

Multimedia Production (Web, Digital Imaging, Video, Audio):		Authoring Tools:
• Adobe Dreamweaver and Flash	• Microsoft Video for Windows	• TenCORE LAS, Producer
• Adobe Director (Shockwave)	• Apple QuickTime, Adobe Premiere	• Toolbook, Guide, Grasp
• Adobe PhotoShop	• Autodesk 3D Studio, Animator Pro	• Authorware Professional
• Adobe Illustrator	• Apple GarageBand (Podcasts, MIDI)	• Aimtech Icon Author

Technical Writing

Possess excellent writing skills. Experienced in the authoring of technical user manuals, application notes, computer software documentation, research monographs, and articles for publication.

Graphic Arts and Desktop Publishing	Skilled in the use of several desktop publishing systems, PostScript illustration tools, and video imaging systems for Macintosh and PC-compatible computers. Familiar with a variety of graphic processes including text design and layout, mechanical lettering guides, dry transfer materials, lithography, and offset printing.

Page Layout:
- Adobe InDesign
- Quark XPress
- Microsoft Publisher

HTML and Text Processing:
- Adobe Dreamweaver and Flash
- Microsoft FrontPage
- Microsoft Office (Word, Excel, Powerpoint)

Illustration:
- Adobe Photoshop
- Adobe Illustrator
- Corel Draw

Photography	Skilled in a variety of photographic situations including portrait, action, and macro photography using both film and digital photography techniques. Experience includes the production of slide/tape presentations using multi-image formats and programmed-dissolve projection techniques, the development and printing of both black & white and color film, and the production of large-scale lithographic prints for graphic displays.
Electronics	Trained in the basics of digital and analog electronics. Skilled in the assembly and troubleshooting of electronic projects, printed circuit boards, and connectors. Experienced with simple computer hardware interfacing and the integration of peripherals and systems.
Music Synthesis	Experienced in the programming and use of several types of synthesizer modules and keyboards. SMPTE tape synchronization, signal processing and sound effects equipment, MIDI control systems, and computer software for composition and the control of musical performance.

Professional Experience:

9/05 –

Wells Fargo, West Des Moines, IA   **Database Administrator / UNIX Engineer**
Currently assigned to Data Services Group (DBA / Infrastructure), I create custom intranet web applications and scripts to automate a number of processes for oncall DBAs and audit compliance. Using Perl, UNIX shell scripts, Java, C#, and C/C++, I created a number of programs to update the status of database servers, check software installations, and test infrastructure configurations. I work with Sybase ASE, IBM DB2, Oracle, and Microsoft SQL database servers. I also install, test, and deploy new software tools in the infrastructure and create performance enchancing job aides and custom documentation. I maintain a web application that manages a database of databases throughout the Wells Fargo infrastructure, used by both DBAs and auditors. I also maintain an HCI (Human Computer Interaction) Resource Center on the corporate intranet using SharePoint, linking research and blogging information for User Experience teams and Interaction Designers across the enterprise.

6/97 – 5/05

Meredith Corporation, Des Moines, IA   **Internet Operations Manager / Internet Engineer**
Working with Successful Farming's Agriculture Online (www.agriculture.com), I created many specialized web applications and award-winning marketing campaigns. The site was selected as a Neal Award winner for best business-to-business web site by American Business Media in 2003. Web applications were created using Perl, Java Servlets, Python, UNIX shell scripting, C/C++, JavaScript, DHTML, and Macromedia Flash (ActionScript). Database design and development centered around the use of Oracle and Informix integrated with ATG Dynamo, Bluestone Sapphire/Web, and Netscape LiveWire. Managed the development of specialized projects and database applications for various the publishing groups working with Interactive Media. Responsible for managing part of Meredith's external infrastructure, including some UNIX systems administration and maintenance of the DNS for all external Meredith domains. Also involved in the research and evaluation of new media and web technologies.

5/95 – 6/97

Iowa State University, Ames, IA   **Webmaster, UNIX Systems Administrator, Instructional Designer**
Developed and managed World-Wide Web resources for the Iowa PROfiles Project (Public Resources Online). Systems administrator for an SGI Indy WebFORCE UNIX workstation and Windows NT web server. Responsible for the implementation, administration, and graphic design of web content providing economic, demographic, and development program information for all regions, counties, and cities in Iowa. Created CGI scripts for the UNIX platform using Perl and shell programming tools. Also developed CGI scripts for database queries using O'Reilly WebSite server software, Visual Basic, and various integrated database systems on the Windows NT platform. Also involved with the development of web-based instructional content and the creation of database tools to track student progress using Microsoft Visual InterDev, Java (Visual J++), and Javascript.

4/93 –

Applied Digital Arts, Indianola, IA   **Editor and Publisher, Internet Service Provider, Software Developer**
Writing articles for publication on multi-platform software development, Internet communications, web authoring tools, and user interface design. Technical Editor for *Multimedia Monitor*. Established Infoplex Communications to design and develop World-Wide Web content, custom CGI and Javascript, on-line hypertext help systems, and interactive multimedia. Managed the design and development of PSInet workstation and server software for Infinet, a set of multi-platform e-mail and conferencing tools for the K-12 audience (an NSF-funded project). Also consulted with Drake University as the Technical Director and UNIX systems administrator for the PSInet project.

10/91 – 4/93

OptImage, West Des Moines, IA   **User Interface Engineer, Product Strategist**
Designed and refined user interfaces for new generations of Compact Disc-Interactive (CD-i) authoring tools. Interface designs included considerations for a number of platforms: Sun OpenWindows, Microsoft Windows 3.1, Apple Macintosh, and the Philips CD-i 605 development player. Managed the design, development, and testing of CD-i authoring tools and utilities designed to run on a PC under Microsoft WIndows 3.1. As product strategist for marketing, wrote a series of technical bulletins, application notes, data sheets, and articles about CD-i technology for magazine publication. Also developed strategic relationships with other companies.

1/91 – 10/91	**Computer Teaching Corporation**, Champaign, IL **Lead Programmer - TenCORE Producer**

1/91 – 10/91   **Computer Teaching Corporation**, Champaign, IL   **Lead Programmer - TenCORE Producer**
Lead programmer for TenCORE Producer (version 2.0), a graphically-oriented multimedia authoring system for MS-DOS. Wrote on object editor for manipulating the various elements of a lesson: graphic and text objects, sprite animations, videodisc sequences, library calls, timed elements, and response types. Participated in the graphic re-design of the tool, helping to add a new 3D graphical user interface. TenCORE Producer was coded using the TenCORE Language Authoring System, a PC-based version of Plato's Tutor language.

6/88 – 1/91   **Applied Digital Arts**, Bloomington, IN   **Performance Technologist, Microcomputer Programmer, Writer**
Developed computer training programs, multimedia presentations, custom database applications, and technical user manuals for corporate clients. Write freelance articles on a variety of subjects, including the application of multimedia technology in corporate training and multimedia integration under UNIX. Developed and marketed computer-animated sales presentations and microcomputer software for instructional applications. Also created soundtracks for small films and interactive videodisc projects in a home-based MIDI recording studio.

8/87 – 2/89   **Indiana University**, Computer Science Department, Bloomington, IN   **Technical Communications Specialist**
Responsible for the analysis, design, production, and maintenance of both published and on-line documentation. Helped with the definition of documentation standards and the maintenance of consistent user software environments on the department's UNIX-based workstations and VAX minicomputers. Involved in the design of prototype hypertext information databases and the integration of multimedia technologies for the collection, organization, and dissemination of computer-based information.

10/86 – 2/87   **Bibliogem**, Bloomington, IN   **Microcomputer Programmer**
Responsible for the design and implementation of assorted instructional applications developed under contract for corporate clients. Target platforms included the Apple IIe, Apple IIgs, IBM PC, and Commodore 64.

11/81 – 11/82   **Von's Computers**, West Lafayette, IN   **Retail Store Manager**
Responsible for developing the computer store from its inception. Duties included in-store sales, new product acquisition, ordering, repair, on-site installation, and maintenance of computer equipment. Performed systems integration: assisting in the selection of hardware and software, installing applications, writing custom software drivers, training personnel, and creating special cables or configuration DIP-headers, as needed.

5/80 – 6/81   **Purdue University**, Electrical Engineering Technology, West Lafayette, IN   **Instructional Software Designer**
Engaged in the writing and development of several computer-based laboratory exercises, created instructional support software used to tabulate student performance in self-paced courses, and developed programs to transfer data between various laboratory microcomputers and the Purdue University Computing Center.

2/75 – 5/78   **UCLA Neuro-Psychiatric Institute**, Behavior Analysis and Modification Project, Oxnard, CA   **Data Analyst**
Summarized and statistically analyzed survey data.

9/76 – 1/78   **California Lutheran University**, Thousand Oaks, CA   **PBX Operator and Campus Receptionist**
Worked as a PBX operator for the campus telephone system and as a campus receptionist. Managed evening telephone service during the Dallas Cowboy's NFL summer training camps.

Academic Appointments:

8/95 – 12/95   **Simpson College**, Division of Adult Learning, Indianola, IA   **Computer Science Instructor**
Taught a course in C++ computer language programming.

8/89 – 12/90   **Indiana Vocational Technical College**, Bloomington, IN   **Computer Science Instructor**
Taught courses dealing with general computer use and skill-building using specific microcomputer applications, including: An introduction to MS-DOS, Advanced MS-DOS, Microsoft Word, and Microsoft Excel. Also taught corporate workshops on general computer use, arranged through the college extension office.

6/85 – 8/86   **National Music Camp**, Interlochen, MI (Academic Faculty)   **Instructor of Computer Studies**
Taught courses in beginning computer programming during the 8-week summer sessions at the Interlochen Center for the Arts. Courses emphasized general BASIC programming and the use of computers in the arts, including graphics, animation, and computer music synthesis. Also conducted faculty development workshops.

8/84 – 5/86   **Indiana University**, Office of Instructional Computing, Bloomington, IN   **Associate Instructor**
Taught courses dealing with the development of computer-based instruction, fundamental issues concerning the use of computers in education, and beginning to advanced-level BASIC programming: Fundamentals of Computer Literacy, Microcomputers in Education, Introduction to Computer-based Education, and Technical Issues in Computer-based Education. Duties included faculty development in advanced microcomputer graphics programming, consultation on computer use and hardware acquisition, and microcomputer repair.

5/84 – 8/84   **Purdue University**, Creative Arts Department, West Lafayette, IN   **Computer Laboratory Assistant**
Laboratory assistant for the Computer Arts Center during the summer session courses. Developed application programs in graphics and music, supervised the operation of the center, organized the departmental computer resources, made recommendations concerning the acquisition of new equipment for the center's expansion, and performed equipment maintenance.

6/78 – 5/80   **Purdue University**, School of Education, West Lafayette, IN   **Graduate Teaching Assistant**
Taught five semesters of Preparation of Instructional Materials, a course covering the design and production of various types of media, including slide/tape presentations, photographic prints, and display graphics. Assisted in several courses for the department of Instructional Research and Development: Computer Assisted Instruction, Introduction to Instructional Development, and Materials design for Instructional Systems.

Memberships in Professional Organizations:

USENIX Association - System Administrators' Guild (SAGE)
Association for Computing Machinery – SIG: Computer-Human Interaction (ACM / SIGCHI)
International Interactive Communications Society (IICS)
American Society for Training and Development (ASTD)
International Society for Performance Improvement (ISPI – formerly NSPI)

Academic Honors:

California Lutheran University, Thousand Oaks, CA

Graduated Summa Cum Laude
Member of the Scholastic Honor Society
Departmental Honors in Psychology
Departmental Assistantship in Psychology   77-78
Departmental Assistantship in Computer Science   76-77, 77-78
Elected to Who's Who of American Colleges and Universities

Hilltop High School, Chula Vista, CA

Member of the California Scholarship Federation

Personal Activities:

Executive Director - Indianola Community Network, Indianola, IA 12/97 -
Co-Founder & Vice President – Central Iowa Linux Users Group, Des Moines, IA   5/97 -
Volunteer – Planetarium and Laser Programmer, Science Center of Iowa, Des Moines, IA   8/93 -
Newsletter Editor, IICS – Indiana University Chapter, Bloomington, IN   6/87 - 3/89
President – Greater Lafayette Apple Users Group, Lafayette, IN   5/79 - 8/82
Eagle Scout in the Boy Scouts of America

Hobbies: Art, photography, musical performance (banjo, dulcimer, flute, piano, and
electronic keyboards), bicycling, archery, electronics, and computers.

References:

Available upon request